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THE LAW OF THE NON-NAVIGATIONAL USES OF INTERNATIONAL WATERCOURSES

Addendum

DRAFT ARTICLES ON THE LAW OF THE NON-NAVIGATIONAL USES OF INTERNATIONAL WATERCOURSES AND COMMENTARIES THERETO, ADOPTED ON SECOND READING BY THE INTERNATIONAL LAW COMMISSION AT ITS FORTY-SIXTH SESSION (continued)

Articles 8 to 20

Article 8

General obligation to cooperate 129/

Watercourse States shall cooperate on the basis of sovereign equality, territorial integrity and mutual benefit in order to attain optimal utilization and adequate protection of an international watercourse.

Commentary

(1) Article 8 lays down the general obligation of watercourse States to cooperate with each other in order to fulfil the obligations and attain the objectives set forth in the draft articles. Cooperation between watercourse States with regard to their utilization of an international watercourse is an important basis for the attainment and maintenance of an equitable allocation of the uses and benefits of the watercourse and for the smooth functioning of the procedural rules contained in part III of the draft.

(2) Article 8 indicates both the basis and the objectives of cooperation. With regard to the basis of cooperation, the article refers to the most fundamental principles upon which cooperation between watercourse States is founded. Other relevant principles include those of good faith and good-neighbourliness. As to the objectives of cooperation, the Commission considered whether these should be set forth in some detail. It came to the conclusion that a general formulation would be more appropriate, especially in view of the wide diversity of international watercourses and the uses thereof, and the needs of watercourse States. This formulation, expressed in the phrase "in order to attain optimal utilization and adequate protection of an international watercourse", is derived from the second sentence of paragraph 1 of article 5 above.

(3) A wide variety of international instruments call for cooperation between the parties with regard to their utilization of the relevant international watercourses. 130/ An example of an international instrument

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129/ Initially adopted as article 9 in 1988.

130/ A survey of international agreements, decisions of international courts and tribunals, declarations and resolutions adopted by intergovernmental organizations, conferences and meetings, and studies by intergovernmental and non-governmental organizations relating to the principle of co-operation is contained in the Special Rapporteur's third report, Yearbook ... 1987, vol. II (Part One), pp. 24 et seq., document A/CN.4/406 and Add.1 and 2, paras. 43-58.

incorporating such an obligation is the Agreement of 17 July 1964 between Poland and the USSR concerning the use of water resources in frontier waters, 131/ paragraph 3 of article 3 which states that the purpose of the Agreement is to ensure cooperation between the parties in economic, scientific and technical activities relating to the use of water resources in frontier waters. Articles 7 and 8 of the Agreement provide for cooperation with regard, inter alia, to water projects and the regular exchange of data and information.

(4) The importance of cooperation in relation to the utilization of international watercourses and other common natural resources has been emphasized repeatedly in declarations and resolutions adopted by intergovernmental

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131/ Entered into force on 16 February 1965 (United Nations, Treaty Series, vol. 552, p. 175). Other examples of international watercourse agreements providing for cooperation between the parties are: (a) the Convention of 16 November 1962 between France and Switzerland concerning protection of the waters of Lake Geneva against pollution (entered into force on 1 November 1963) (ibid., vol. 922, p. 49) (arts. 1-4); (b) the Agreement of 14 August 1983 between the United States of America and Mexico on cooperation for the protection and improvement of the environment in the border area (entered into force on 16 February 1984), a framework agreement encompassing boundary water resources (International Legal Materials (Washington, D.C.), vol. XXII (1983), p. 1025) (art. 1 and annex I); (c) the Act of 26 October 1963 regarding navigation and economic cooperation between the States of the Niger Basin (Cameroon, Ivory Coast, Dahomey, Guinea, Upper Volta, Mali, Niger, Nigeria and Chad) (entered into force on 1 February 1966) (see United Nations Treaty Series, vol. 587, p. 9) (art. 4); (d) the Convention relating to the status of the Senegal River and the Convention establishing the Organization for the Development of the Senegal River, both of 11 March 1972 (United Nations, Natural Resources/Water Series No. 13 (see Treaties concerning the Utilisation of International Watercourses for Other Purposes than Navigation: Africa Natural Resources/Water Series No. 13) pp. 16 and 21, respectively); (e) the Convention and Statutes of 22 May 1964 relating to the development of the Chad Basin (Official Gazette of the Federal Republic of Cameroon (Yaoundé), vol. 4, No. 18 (15 September 1964), p. 1003; Yearbook ... 1974, vol. II (Part Two), pp. 290-291, document A/CN.4/274, paras. 51-56) (art. 1 of the Statutes); (f) the Indus Waters Treaty of 19 September 1960 between India and Pakistan (entered into force on 12 January 1961) (see United Nations Treaty Series vol. 419, p. 125) (arts. VII and VIII). More generally, article 197 of the 1982 United Nations Convention on the Law of the Sea (see footnote 99 above), entitled "Co-operation on a global or regional basis", requires States to cooperate "in formulating and elaborating international rules, standards and recommended practices and procedures consistent with this Convention, for the protection and preservation of the marine environment, taking into account characteristic regional features".

organizations, conferences and meetings, as well as in article 3 of the Charter of Economic Rights and Duties of States, to which reference has already been made. 132/ For example, the General Assembly addressed the subject in resolution 2995 (XXVII) of 15 December 1972 on cooperation between States in the field of the environment, and resolution 3129 (XXVIII) of 13 December 1973 on cooperation in the field of the environment concerning natural resources shared by two or more States. By way of illustration, the former provides, in its preamble, that, "in exercising their sovereignty over their natural resources, States must seek, through effective bilateral and multilateral cooperation or through regional machinery, to preserve and improve the environment". The subject of cooperation in the utilization of common water resources and in the field of environmental protection was also addressed in the Declaration of the United Nations Conference on the Human Environment in 1972. 133/ Principle 24 of that Declaration provides:

Principle 24

> International matters concerning the protection and improvement of the environment should be handled in a cooperative spirit by all countries, big and small, on an equal footing. Cooperation through multilateral or bilateral arrangements or other appropriate means is essential to effectively control, prevent, reduce and eliminate adverse environmental effects resulting from activities conducted in all spheres, in such a way that due account is taken of the sovereignty and interests of all States. 134/

132/ See General Assembly resolution 3281 (XXIX) of 12 December 1974.

133/ Report of the United Nations Conference on the Human Environment, Stockholm, 1972.

134/ See also Recommendation 51 of the Action Plan for the Human Environment adopted by the same Conference (Report of the United Nations Conference on the Human Environment) part one, chap. II.B, which provides for cooperation with regard specifically to international watercourses.

The Mar del Plata Action Plan, adopted by the United Nations Water Conference, held at Mar del Plata (Argentina) in 1977, 135/ contains a number of recommendations relating to regional and international cooperation with regard to the use and development of international watercourses. For example, Recommendation 90 provides that cooperation between States in the case of international watercourses "in accordance with the Charter of the United Nations and principles of international law, must be exercised on the basis of the equality, sovereignty and territorial integrity of all States, and taking due account of the principle expressed, inter alia, in principle 21 of the Declaration of the United Nations Conference on the Human Environment". 136/ In 1987, ECE adopted a set of "Principles regarding cooperation in the field of transboundary waters", 137/ Principle 2 of which provides:

> Cooperation
>
> 2. Transboundary effects of natural phenomena and human activities on transboundary waters are best regulated by the concerted efforts of the countries immediately concerned. Therefore cooperation should be established as practical as possible among riparian countries leading to a constant and comprehensive exchange of information, regular consultations and decisions concerning issues of mutual interest: objectives, standards and norms, monitoring, planning, research and development programmes and

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135/ Report of the United Nations Water Conference, Mar del Plata, 14-25 March 1977 (United Nations publication, Sales No. E.77.II.A.12), part one, chap. I.

136/ Ibid., p. 53 (Principle 21 of the Declaration on the Human Environment is reproduced in paragraph (24) of the commentary to article 7 above). See also Recommendation 84 of the Mar del Plata Action Plan (ibid., p. 51) and the resolutions contained in the Action Plan on "Technical cooperation among developing countries in the water sector", "River commissions" and "Institutional arrangements for international cooperation in the water sector" (ibid., pp. 76-79).

137/ See Yearbook ... 1974 vol. II, (Part Two) p. 212 above. The preamble to the principles states: "... The following principles address only issues regarding control and prevention of transboundary water pollution, as well as flood management in transboundary waters, including general issues in this field ..."

concrete measures, including the implementation and surveillance of such measures.

(5) Numerous studies by intergovernmental and international non-governmental organizations have also recognized the importance of cooperation between States in the use and development of international watercourses. 138/ An instrument expressly recognizing the importance of cooperation between States to the effectiveness of procedural and other rules concerning international watercourses is the Rules on Water Pollution in an International Drainage Basin, adopted by ILA in 1982. 139/ Article 4 of the Rules provides: "In order to give effect to the provisions of these articles, States shall cooperate with the other States concerned." A forceful statement of the importance of cooperation with regard to international water resources, owing to the physical properties of water, is found in Principle XII of the European Water Charter, adopted by the Committee of Ministers of the Council of Europe in 1967, 140/ which declares: "Water knows no frontiers; as a common resource it demands international co-operation." Finally, the resolution on "The pollution of rivers and lakes and international law" adopted by the Institute of International Law at its Athens session, in 1979, 141/ provides in Article IV (b) that in order to prevent water pollution, States

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138/ See generally the studies referred to and excerpted in Yearbook ... 1974, vol. II (Part Two), pp. 199 et seq., document A/5409, paras. 1069-1098; and pp. 338 et seq., document A/CN.4/274, paras. 364-381, and pp. 356 et seq., paras. 399-409.

139/ See ILA, Report of the Sixtieth Conference, Montreal, 1982.

140/ Adopted on 28 April 1967 by the Consultative Assembly of the Council of Europe (Recommendation 493 (1967)), and on 26 May 1967 by the Committee of Ministers (resolution (67) 10); text reproduced in Yearbook ... 1974, vol. II (Part Two), pp. 342-343, document A/CN.4/274, para. 373.

141/ See Annuaire de L'Institut de droit international, 1979, vol. 58-II, pp. 196 et seq.

shall use as a means "at international level, co-operation in good faith with the other States concerned". 142/

(6) In conclusion, cooperation between watercourse States is important to the equitable and reasonable utilization of international watercourses. It also forms the basis for the regular exchange of data and information under article 9, as well as for the other parts of the draft.

Article 9

Regular exchange of data and nformation 143/

1. Pursuant to article 8, watercourse States shall on a regular basis exchange readily available data and information on the condition of the watercourse, in particular that of a hydrological, meteorological, hydrogeological and ecological nature, as well as related forecasts.

2. If a watercourse State is requested by another watercourse State to provide data or information that is not readily available, it shall employ its best efforts to comply with the request but may condition its compliance upon payment by the requesting State of the reasonable costs of collecting and, where appropriate, processing such data or information.

3. Watercourse States shall employ their best efforts to collect and, where appropriate, to process data and information in a manner which facilitates its utilization by the other watercourse States to which it is communicated.

Commentary

142/ Article VII of the resolution provides that, "in carrying out their duty to cooperate, States bordering the same hydrographic basin shall, as far as practicable, especially through agreements, resort to the following ways of cooperation", including providing data concerning pollution, giving advance notification of potentially polluting activities, and consulting on actual or potential transboundary pollution problems.

143/ Initially adopted as article 10 in 1988.

(1) Article 9 sets forth the general minimum requirements for the exchange between watercourse States of the data and information necessary to ensure the equitable and reasonable utilization of an international watercourse. Watercourse States require data and information concerning the condition of the watercourse in order to apply article 6, which calls for watercourse States to take into account "all relevant factors and circumstances" in implementing the obligation of equitable utilization laid down in article 5. The rules contained in article 9 are, of course, residual: they apply in the absence of particularized regulation of the subject in an agreement of the kind envisaged in article 3, i.e. one relating to a specific international watercourse. Indeed, the need is clear for watercourse States to conclude such agreements among themselves in order to provide, inter alia, for the collection and exchange of data and information in the light of the characteristics of the international watercourse involved, as well as of their special requirements and circumstances. The smooth and effective functioning of the regime envisaged in article 9 is dependent upon cooperation between watercourse States. The rules in this article thus constitute a specific application of the general obligation to cooperate laid down in article 8, as reflected in the opening phrase of paragraph 1.

(2) The requirement of paragraph 1 that data and information be exchanged on a regular basis is designed to ensure that watercourse States will have the facts necessary to enable them to comply with their obligations under articles 5, 6 and 7. The data and information may be transmitted directly or indirectly. In many cases, watercourse States have established joint bodies entrusted, inter alia, with the collection, processing and dissemination of data and information of the

kind referred to in paragraph 1. 144/ But the States concerned are, of course, free to utilize for this purpose any mutually acceptable method.

(3) The Commission recognizes that circumstances such as an armed conflict or the absence of diplomatic relations may raise serious obstacles to the direct exchange of data and information, as well as to a number of the procedures provided for in articles 11 to 19. The Commission decided that this problem would be best dealt with through a general saving clause specifically providing for indirect procedures, which has taken the form of article 30.

(4) In requiring the "regular" exchange of data and information, article 9 provides for an ongoing and systematic process, as distinct from the ad hoc provision of information concerning planned measures envisaged in part III of the draft.

144/ For illustrative lists of such bodies and discussions thereof, see (a) Yearbook ... 1974, vol. II (Part Two), pp. 351 et seq., document A/CN.4/274, paras. 382-398; (b) the Proceedings of the United Nations Interregional Meeting of International River Organizations, held at Dakar (Senegal) from 5 to 14 May 1981, Experiences in the Development and Management of International River and Lake Basins, Natural Resources/Water Series No. 10 (United Nations publication, Sales No. E.82.II.A.17), part three; (c) N. Ely and A. Wolman, "Administration", The Law of International Drainage Basins (1967), pp. 125-133; (d) United Nations, Management of International Water Resources: Institutional and Legal Aspects, Natural Resources/Water Series No. 1 (Sales No. E.75.II.A.2), annex IV; (e) T. Parnall and A.E. Utton, "The Senegal Valley Authority: A unique experiment in international river basin planning", Indiana Law Journal (Bloomington), vol. 51 (1975-1976), pp. 254 et seq.

Notable among these administrative mechanisms are: in Africa: the Lake Chad Basin Commission, the Niger Basin Authority (formerly River Niger Commission), the Permanent Joint Technical Commission for Nile Waters (Egypt and Sudan) and the Organization for the Management and Development of the Kagera River Basin; in America: the Intergovernmental Coordinating Committee of the River Plate Basin, the International Joint Commission (Canada and United States of America) and the International Boundary and Water Commission (United States of America and Mexico); in Asia: The Committee for Coordination of Investigations of the Lower Mekong Basin, the Permanent Indus Commission (India and Pakistan), the Joint Rivers Commission (India and Bangladesh) and the Helmand River Delta Commission (Afghanistan and Iran); in Europe: the Danube Commission, the International Commission for the Protection of the Moselle against Pollution, the International Commission for the Protection of the Rhine against Pollution and the Joint Finnish-Soviet Commission on the Utilization of Frontier Watercourses.

(5) Paragraph 1 requires that watercourse States exchange data and information that is "readily available". 145/ This expression is used to indicate that, as a matter of general legal duty, a watercourse State is obligated to provide only such information as is readily at its disposal, for example that which it has already collected for its own use or is easily accessible. 146/ In a specific case, whether data and information was "readily" available would depend upon an objective evaluation of such factors as the effort and cost its provision would entail, taking into account the human, technical, financial and other relevant resources of the requested watercourse State. The terms "readily", as used in paragraphs 1 and 2, are thus terms of art having a meaning corresponding roughly to the expression "in the light of all the relevant circumstances" or to the word "feasible", rather than, for example, "rationally" or "logically".

(6) In the absence of agreement to the contrary, watercourse States are not required to process the data and information to be exchanged. Under paragraph 3 of article 9, however, they are to employ their best efforts to provide the information in a form that is usable by the States receiving it.

(7) Examples of instruments which employ the term "available" in reference to information to be provided are the 1960 Indus Waters Treaty between India and

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145/ Art. XXIX, para. 1 of the Helsinki Rules employs the expression "relevant and reasonably available" see ILA, Report of the Fifty-Second Conference, Helsinki, 1966.

146/ Cf. the commentary to art. XXIX, para. 1, of the Helsinki Rules, which states:

> "The reference to 'relevant and reasonably available information' makes it clear that the basin State in question cannot be called upon to furnish information which is not pertinent and cannot be put to the expense and trouble of securing statistics and other data which are not already at hand or readily obtainable. The provision of the article is not intended to prejudge the question whether a basin State may justifiably call upon another to furnish information which is not 'reasonably available' if the first State is willing to bear the cost of securing the desired information." ILA, Report of the Fifty-Second Conference, 1966, p. 519.

Pakistan 147/ and the 1986 Convention on Early Notification of a Nuclear Accident. 148/

(8) Watercourse States are required to exchange data and information concerning the "condition" of the international watercourse. This term, which also appears in article 11, has its usual meaning, referring generally to the current state or characteristics of the watercourse. As indicated by the words "in particular", the kinds of data and information mentioned, while by no means comprising an exhaustive list, are those regarded as being the most important for the purpose of equitable utilization. Although article 9 does not mention the exchange of samples, the Commission recognizes that this may indeed be of great practical value in some circumstances and should be effected as appropriate.

(9) The data and information transmitted to other watercourse States should include indications of effects upon the condition of the watercourse of present uses thereof within the State transmitting the information. Possible effects of planned uses are dealt with in articles 11 to 19.

(10) Paragraph 1 of article 9 requires the regular exchange of, inter alia, data and information of an "ecological" nature. The Commission regarded this term as being preferable to "environmental", since it relates more specifically to the living resources of the watercourse itself. The term "environmental" was thought to be susceptible of a broader interpretation, which would result in the imposition of too great a burden upon watercourse States.

147/ See UNTS, vol. 419, p. 125. Art. VII, para. 2, of the Treaty provides that a party planning to construct engineering works which would affect the other party materially

> "shall notify the other Party of its plans and shall supply such data relating to the work as may be available* and as would enable the other Party to inform itself of the nature, magnitude and effect of the work".

Cf. art. XXIX, para. 1, of the Helsinki Rules and the commentary thereto, ILA, Report of the Fifty-Second Conference, 1966.

148/ IAEA, Legal Series No. 14 (Vienna, 1987), p. 1. Art. 2 (b) of the Convention requires the provision of "available information relevant to minimizing the radiological consequences ...".

(11) Watercourse States are required by paragraph 1 to exchange not only data and information on the present condition of the watercourse, but also related forecasts. The latter requirement is, like the former, subject to the qualification that such forecasts be "readily available". Thus watercourse States are not required to undertake special efforts in order to fulfil this obligation. The forecasts envisaged would relate to such matters as weather patterns and the possible effects thereof upon water levels and flows; foreseeable ice conditions; possible long-term effects of present use; and the condition or movement of living resources.

(12) The requirement in paragraph 1 applies even in the relatively rare instances in which no watercourse State is presently using or planning to use the watercourse. If data and information concerning the condition of the watercourse is "readily available", the Commission believed that requiring the exchange of such data and information would not be excessively burdensome. In fact, the exchange of data and information concerning such watercourses might assist watercourse States in planning for the future and in meeting development or other needs.

(13) Paragraph 2 concerns requests for data or information that is not reasonably available to the watercourse State from which it is sought. In such cases, the State in question is to employ its "best efforts" to comply with the request, i.e. it is to act in good faith and in a spirit of cooperation in endeavouring to provide the data or information sought by the requesting watercourse State.

(14) For data and information to be of practical value to watercourse States, it must be in a form which allows them to use it. Paragraph 3 therefore requires watercourse States to use their "best efforts to collect and, where appropriate, to process data and information in a manner which facilitates its utilization". The meaning of the expression "best efforts" is explained in paragraph (13) of the present commentary, relating to paragraph 2. The expression "where appropriate" is used in order to provide a measure of flexibility, which is necessary for several reasons. In some cases, it may not be necessary to process data and information in order to render it usable by another State. In other cases, such processing may be necessary in order to ensure that the material is

usable by other States, but this may entail undue burdens for the State providing the material.

(15) The need for the regular collection and exchange of a broad range of data and information relating to international watercourses has been recognized in a large number of international agreements, declarations and resolutions adopted by intergovernmental organizations, conferences and meetings, and studies by intergovernmental and international non-governmental organizations. 149/ An example of agreements containing general provisions on the regular exchange of data and information is the 1964 Agreement between Poland and the USSR concerning the use of water resources in frontier waters, 150/ article 7, paragraph 1, of which provides:

> 1. The Contracting Parties shall establish principles of cooperation governing the regular exchange of hydrological, hydrometeorological and hydrogeological information and forecasts relating to frontier waters and shall determine the scope, programmes and methods of carrying out measurements and observation and of processing their results and also the places and times at which the work is to be done.

Other examples of agreements containing provisions on the exchange of data and information are the 1960 Indus Waters Treaty between India and Pakistan 151/ (art. VI), the 1944 Treaty between the United States of America and Mexico 152/ (art. 9 (j)), the Agreement of 25 November 1964 concerning the Niger River Commission and the navigation and transport on the River Niger 153/ (art. 2 (c))

149/ A survey of the relevant provisions of these instruments is contained in the Special Rapporteur's fourth report, document A/CN.4/412 and Add.1 and 2, paras. 15-26. See also art. 3 of the Charter of Economic Rights and Duties of States, General Assembly resolution 3281 (XXIX) of 12 December 1974.

150/ See UNTS, vol. 552, p. 175.

151/ See UNTS, vol. 419, p. 125.

152/ See UNTS, vol. 3, p. 313.

153/ United Nations, Treaty Series, vol. 587, p. 19.

and the Agreement of 16 September 1971 between Finland and Sweden concerning frontier rivers 154/ (chap. 9, art. 3).

(16) The regular exchange of data and information is particularly important for the effective protection of international watercourses, preservation of water quality and prevention of pollution. This is recognized in a number of international agreements, declarations and resolutions, and studies. 155/ For example, Principle 11 (a) of the "Principles regarding co-operation in the field of transboundary waters" adopted by ECE in 1987. 156/

(17) In summary, the regular exchange by watercourse States of data and information concerning the condition of the watercourse provides those States with the material necessary to comply with their obligations under articles 5 to 7, as well as for their own planning purposes. While article 9 concerns the exchange of data and information on a regular basis, the articles in part III, which follows, deal with the provision of information on an ad hoc basis, namely with regard to planned measures.

Article 10

Relationship between different kinds of uses 157/

1. In the absence of agreement or custom to the contrary, no use of an international watercourse enjoys inherent priority over other uses.

2. In the event of a conflict between uses of an international watercourse, it shall be resolved with reference to the principles and factors set out in articles 5 to 7, with special regard being given to the requirements of vital human needs.

Commentary

154/ Ibid., vol. 825, p. 191.

155/ See the examples cited in the Special Rapporteur's fourth report, document A/CN.4/412 and Add.1 and 2.

156/ Yearbook ... 1974, vol. II, (Part II), p. 212 in fine above. The Principles are limited by their preamble to flood management and the prevention and control of pollution.

157/ Adopted in 1991.

(1) Article 10 sets forth the general principle that no use of an international watercourse enjoys inherent priority over other uses. The article also addresses the situation in which there is a conflict between different uses of an international watercourse.

(2) Since States, through agreement or practice, often give priority to a specific use or class of uses, paragraph 1 is couched in terms of a residual rule. Thus, the opening clause of the paragraph preserves any priority established by "agreement or custom" between the watercourse States concerned. The term "agreement" is used in its broad sense and would include, e.g. an arrangement or modus vivendi that had been arrived at by watercourse States. Furthermore, it is not limited to "watercourse agreements" since it is possible that certain uses, such as navigation, could be addressed in other kinds of agreements such as treaties of amity. The word "custom" applies to situations in which there may be no "agreement" between watercourse States but where, by tradition or in practice, they have given priority to a particular use. The reference to an "inherent priority" likewise indicates that nothing in the nature of a particular type or category of uses gives it a presumptive or intrinsic priority over other uses, leaving watercourse States free to decide to accord priority to a specific use in relation to a particular international watercourse. This applies equally to navigational uses which, according to article 1, paragraph 2, fall within the scope of the present articles "in so far as other uses affect navigation or are affected by navigation".

(3) Paragraph 2 deals with the situation in which different uses of an international watercourse conflict, or interfere, with each other but where no applicable priorities have been established by custom or agreement. In such a case, paragraph 2 indicates that the situation is to be resolved with reference to the principles and factors contained in articles 5 to 7, "with special regard being given to the requirements of vital human needs". Within the meaning of the article, therefore, a "conflict" between uses could only arise where no system of priorities governing those uses, or other means of accommodating them, had been established by agreement or custom as between the watercourse States concerned. It bears emphasis that the paragraph refers to a "conflict" between uses of an

international watercourse, and not a conflict or dispute between watercourse States. 158/

(4) The principles and factors to be applied in resolving a conflict between uses of an international watercourse under paragraph 2 are those contained in articles 5, 6 and 7. The factors to be taken into account under article 6 are those that are relevant to the international watercourse in question. However, in deciding upon the manner in which such a conflict is to be resolved, watercourse States are to have "special regard ... to the requirements of vital human needs". That is, special attention is to be paid to providing sufficient water to sustain human life, including both drinking water and water required for the production of food in order to prevent starvation. This criterion is an accentuated form of the factor contained in article 6, paragraph 1 (b), which refers to the "social and economic needs of the watercourse States concerned". Since paragraph 2 includes a reference to article 6, the latter factor is, in any event, one of those to be taken into account by the watercourse States concerned in arriving at a resolution of a conflict between uses.

(5) While navigational uses may have enjoyed a general priority earlier in this century, 159/ States recognized the need for greater flexibility as other kinds of uses began to rival navigation in economic and social importance. A resolution adopted in 1966 by the Fourth Annual Meeting of the Inter-American Economic and Social Council at the Ministerial Level exemplifies this shift in attitude in its recognition of the importance of taking into account the variety of potential uses of a watercourse. The resolution recommends that member countries promote, for the common good, the economic utilization of the

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158/ See also paragraph (9) of the commentary to article 5 above.

159/ Illustrative of this position is art. 10, para. 1, of the 1921 Barcelona Convention and Statute on the regime of navigable waterways of international concern, League of Nations, Treaty Series, vol. VII, p. 57. Other examples may be found in the "Declaration of Montevideo", approved by the Seventh International Conference of American States in 1933, art. 5, reproduced in Yearbook ... 1974, vol. II (Part Two), p. 212, document A/5409, annex I, A; and rule II, 4, of the 1911 "Madrid resolution" of the Institute of International Law (on which art. 5 of the Montevideo Declaration was based), Annuaire de l'institut de droit international, 1911 (Paris), vol. 24, p. 366.

hydrographic basins and streams of the region of which they are a part, for "transportation, the production of electric power, irrigation works, and other uses, and particularly in order to control and prevent damage such as periodically occurs as the result of ... floods". 160/ In the same year, the International Law Association also concluded that no individual use enjoys general priority. Article VI of the ILA's Helsinki Rules on the Uses of the Waters of International Rivers provides that: "A use or category of uses is not entitled to any inherent preference over any other use or category of uses." 161/ The importance of preserving sufficient flexibility to ensure a supply of fresh water adequate to meet human needs in the next century was recently emphasized in the "Delft Declaration". Adopted at a symposium held in Delft, the Netherlands, 3-5 June 1991, under the sponsorship of the United Nations Development Programme (UNDP), the Declaration notes that by the year 2000 nearly half the world's population will be living in cities. It refers to the "daunting" challenge to satisfy the water needs of "exploding" metropolitan areas "given the equally increasing need for water for irrigated agriculture and the problems arising from urban and industrial pollution". The water experts at the symposium concluded that in order to satisfy human water needs "in a sustainable way, advanced measures have to be taken to protect and conserve the water and environmental resources". 162/ Such measures would often be impossible if a particular use enjoyed inherent priority. The absence of such a priority among uses will facilitate the implementation of measures designed to ensure that "vital human needs" are satisfied.

160/ Resolution 24-M/66, "Control and economic utilization of hydrographic basins and streams in Latin America" (sole operative paragraph), reproduced in Yearbook ... 1974, vol. II (Part Two), p. 351, document A/CN.4/274, para. 380.

161/ International Law Association, Report of the Fifty-Second Conference, Helsinki, 1966 (London 1967), p. 491.

162/ The Delft Declaration is annexed to a UNDP press release, Geneva, 10 June 1991.

PART III

PLANNED MEASURES

Article 11

Information concerning planned measures 163/

Watercourse States shall exchange information and consult each other on the possible effects of planned measures on the condition of an international watercourse.

Commentary

(1) Article 11 introduces the articles of part III of the draft and provides a bridge between part II, which includes article 9 on the regular exchange of data and information, and part III, which deals with the provision of information concerning planned measures.

(2) Article 11 lays down a general obligation of watercourse States to provide each other with information concerning the possible effects upon the condition of the international watercourse of measures they might plan to undertake. The article also requires that watercourse States consult with each other on the effects of such measures.

(3) The expression "possible effects" includes all potential effects of planned measures, whether adverse or beneficial. Article 11 thus goes beyond article 12 and subsequent articles, which concern planned measures that may have an appreciable adverse effect upon other watercourse States. Indeed, watercourse States have an interest in being informed of possible positive as well as negative effects of planned measures. In addition, requiring the exchange of information and consultation with regard to all possible effects avoids problems inherent in unilateral assessments of the actual nature of such effects.

(4) The term "measures" is to be taken in its broad sense, i.e. as including new projects or programmes of a major or minor nature, as well as changes in existing uses of an international watercourse.

163/ Initially adopted in 1988.

(5) Illustrations of instruments and decisions which lay down a requirement similar to that contained in article 11 are provided in the commentary to article 12 below.

Article 12

Notification concerning planned measures with possible adverse effects 164/

Before a watercourse State implements or permits the implementation of planned measures which may have a significant adverse effect upon other watercourse States, it shall provide those States with timely notification thereof. Such notification shall be accompanied by available technical data and information in order to enable the notified States to evaluate the possible effects of the planned measures.

Commentary

(1) Article 12 introduces a set of articles on planned measures that may have a significant adverse effect upon other watercourse States. These articles establish a procedural framework designed to assist watercourse States in maintaining an equitable balance between their respective uses of an international watercourse. It is envisaged that this set of procedures will thus help to avoid disputes relating to new uses of watercourses.

(2) The procedures provided for in articles 12 to 19 are triggered by the criterion that measures planned by a watercourse State may have "a significant adverse effect" upon other watercourse States. 165/ The threshold established by this standard is intended to be lower than that of "significant harm" under article 7. Thus a "significant adverse effect" may not rise to the level of "significant harm" within the meaning of article 7. "Significant harm" is not an

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164/ Initially adopted in 1988.

165/ The "Draft principles of conduct in the field of the environment for the guidance of States in the conservation and harmonious utilization of natural resources shared by two or more States", adopted by the Governing Council of UNEP in 1978 (decision 6/14 of 19 May 1978), define the expression "significantly affect" as referring to "any appreciable effects on a shared natural resource and [excluding] de minimis effects". For the text of the draft principles, see UNEP/IG.12/2, annexed to document UNEP/GC.6/17; for the final text, see UNEP, Environmental Law. Guidelines and Principles, No. 2, Shared Natural Resources (Nairobi, 1978).

appropriate standard for the setting in motion of the procedures under articles 12 to 19, since use of that standard would mean that the procedures would be engaged only where implementation of the new measures might result in a conduct covered by article 7. Thus a watercourse State providing a notification of planned measures would be put in the position of admitting that the measures it was planning might cause significant harm to other watercourse States in conduct covered by article 7. The standard of a "significant adverse effect" is employed to avoid such a situation.

(3) The phrase "implements or permits the implementation of" is intended to make clear that article 12 covers not only measures planned by the State, but also those planned by private entities. The word "permit" is employed in its broad sense, i.e. as meaning both "allow" and "authorize". Thus, in the case of measures planned by a private entity, the watercourse State in question is under an obligation not to authorize the entity to implement the measures - and otherwise not to allow it to go forward with their implementation - before notifying other watercourse States as provided in article 12. References in subsequent articles to "implementation" of planned measures 166/ are to be understood as including permitting the implementation thereof.

(4) The term "timely" is intended to require notification sufficiently early in the planning stages to permit meaningful consultations and negotiations under subsequent articles, if such prove necessary. An example of a treaty containing a requirement of this kind is the Agreement of 30 April 1966 between Austria, the Federal Republic of Germany and Switzerland regulating the withdrawal of water from Lake Constance, 167/ article 7 of which provides that "riparian States shall, before authorizing [certain specified] withdrawals of water, afford one another in good time an opportunity to express their views".

(5) The reference to "available" technical data and information is intended to indicate that the notifying State is generally not required to conduct additional research at the request of a potentially affected State, but must only provide

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166/ See art. 15, para. 2, art. 16 and art 19, para. 1, below.

167/ Entered into force on 25 November 1967 (United Nations, Treaty Series, vol. 620, p. 191.

such relevant data and information as has been developed in relation to the planned measures and is readily accessible. (The meaning of the term "available" is also discussed in paragraphs (5)-(7) of the commentary to article 9). If a notified State requests data or information that is not readily available, but is accessible only to the notifying State, it would generally be appropriate for the former to offer to indemnify the latter for expenses incurred in producing the requested material. As provided in article 31, the notifying State is not required to divulge data or information that is vital to its national defence or national security. Examples of instruments which employ the term "available" in reference to information to be provided are given in paragraph (7) of the commentary to article 9.

(6) The principle of notification of planned measures is embodied in a number of international agreements, decisions of international courts and tribunals, declarations and resolutions adopted by intergovernmental organizations, conferences and meetings, and studies by intergovernmental and international non-governmental organizations. 168/ An example of a treaty containing such a provision is the Convention of 25 May 1954 between Yugoslavia and Austria concerning water economy questions relating to the Drava (art. 4). 169/ Other similar agreements include the 1866 Treaty of Bayonne (Boundary Treaty between Spain and France) and its Additional Act 170/ (art. XI of

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168/ A survey of these authorities is contained in the Special Rapporteur's third report, Yearbook ... 1987, vol. II (Part One), pp. 28 et seq., document A/CN.4/406 and Add.1 and 2, paras. 63-87, and p. 46, annex II.

169/ Entered into force on 15 January 1955 (United Nations, Treaty Series, vol. 227, p. 111).

170/ The relevant provisions of the Additional Act of 26 May 1866 to the Boundary Treaties of 2 December 1856, 14 April 1862 and 26 May 1866 (ratified on 12 July 1866) are reproduced in International Law Reports, 1957 (London), vol. 24 (1961), pp. 102-105 (see also p. 138); summarized in Yearbook ... 1974, vol. II (Part Two), pp. 170-171, document A/5409, paras. 895-902. This agreement was construed and applied in the Lake Lanoux arbitration.

the Act); the 1972 Convention relating to the status of the Senegal River 171/ (art. 4), the 1960 Convention on the protection of Lake Constance against pollution 172/ (art. 1, para. 3), the 1960 Indus Waters Treaty between India and Pakistan 173/ (art. VII, para. 2) and the Convention of 9 December 1923 relating to the development of hydraulic power affecting more than one State 174/ (art. 4).

(7) A number of agreements provide for notification and exchange of information concerning new projects or uses through an institutional mechanism established to facilitate the management of a watercourse. An example is the 1975 Statute of the Uruguay River, 175/ adopted by Uruguay and Argentina, which contains detailed provisions on notification requirements, the content of the notification, the period for reply, and procedures applicable in the event that the parties fail to agree on the proposed project. 176/ Other agreements providing for notification of planned measures through a joint body include the treaty regime governing the

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171/ See Treaties Concerning the Utilization of International Watercourses for Other Purposes than Navigation, Natural Resources/Water Series No. 13.

172/ See UNTS vol. 3, p. 313.

173/ See UNTS vol. 419, p. 125.

174/ Entered into force on 30 June 1925 (League of Nations, Treaty Series, vol. XXXVI, p. 75).

175/ See arts. 7 to 12 of the Statute; Actos Internacionales, Uruguay-Argentina, 1830-1980 (Montevideo 1981) p. 593.

176/ See also chap. XV (art. 60) of the Statute, which provides for judicial settlement of disputes, and chap. XIV (arts. 58 and 59), which provides for a conciliation procedure.

Niger River 177/ and the Treaty of 19 November 1973 between Argentina and Uruguay on the River Plate and its maritime outlet. 178/ (art. 17).

(8) The subject of notification concerning planned measures was dealt with extensively by the arbitral tribunal in the Lake Lanoux case. 179/ Relevant conclusions reached by the tribunal in its award include the following: (a) at least in the factual context of the case, international law does not require prior agreement between the upper and lower riparian States concerning a proposed new use, and "international practice prefers to resort to less extreme solutions, limiting itself to requiring States to seek the terms of an agreement by preliminary negotiations without making the exercise of their competence conditional on the conclusion of this agreement"; 180/ (b) under then current trends in international practice concerning hydroelectric development, "consideration must be given to all interests, whatever their nature, which may be affected by the works undertaken, even if they do not amount to a right"; 181/ (c) "the upper riparian State, under the rules of good faith, has an obligation to take into consideration the various interests concerned, to seek to give them every satisfaction compatible with the pursuit of its own interests and to show that it has, in this matter, a real desire to reconcile the interests of the

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177/ See art. 4 of the Act of Niamey of 1963 United Nations Treaty Series vol. 587 p. 9 above) and art. 12 of the 1964 Agreement concerning the Niger River Commission United Nations Treaty Series, vol. 589, p. 19.

178/ Entered into force on 12 February 1974 (INTAL, Derecho de la Integración (Buenos Aires), vol. VII, No. 15 (March 1974), p. 225; International Legal Materials (Washington, D.C.), vol. XIII (1974), p. 251; summarized in Yearbook ... 1974, vol. II (Part Two), pp. 298 et seq., document A/CN.4/274, paras. 115-130.

179/ See Reports of International Arbitral Awards, vol. XII, p. 281.

180/ Para. 11 (third subparagraph) of the award (Yearbook ... 1974, vol. II (Part Two), p. 197, document A/5409, para. 1065).

181/ Para. 22 (second subparagraph) of the award (ibid., p. 198, para. 1068).

other riparian with its own"; 182/ (d) there is an "intimate connection between the obligation to take adverse interests into account in the course of negotiations and the obligation to give a reasonable place to such interests in the solution adopted". 183/ France had, in fact, consulted with Spain prior to the initiation of the diversion project at issue in that case, in response to Spain's claim that it was entitled to prior notification under article 11 of the 1866 Additional Act to the Treaty of Bayonne. 184/

(9) The need for prior notification of planned measures has been recognized in a number of declarations and resolutions adopted by intergovernmental organizations, conferences and meetings. Recommendation 51 of the Action Plan for the Human Environment adopted by the United Nations Conference on the Human Environment in 1972 185/ contains the following principle relating to notification of planned new uses:

> Nations agree that when major water resource activities are contemplated that may have a significant environmental effect on another country, the other country should be notified well in advance of the activity envisaged;

(10) The Seventh International Conference of American States had previously adopted the Declaration of Montevideo, 186/ which provides not only for advance notice of planned works, but also for prior consent with regard to potentially injurious modifications. 187/ Examples of similar provisions are the "Principle

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182/ Para. 22 (third subparagraph) of the award (ibid.).

183/ Para. 24 (penultimate subparagraph) of the award (ibid.).

184/ See International Law Reports, 1957, vol. 24 (1961), pp. 102-105.

185/ Report of the United Nations Conference on the Human Environment, part one, chap. II.B.

186/ See The International Conference of American States, First Supplement 1933-1940, (1940) p. 109.

187/ See paras. 6 to 8 of the Declaration. Paragraph 9 of the Declaration provides for the resolution of any remaining differences through diplomatic channels, conciliation, and ultimately any procedures under conventions in effect

of information and consultation" annexed to the "Principles concerning transfrontier pollution" adopted by the Council of OECD in 1974, 188/ and the recommendations on "regional cooperation" adopted by the United Nations Water Conference in 1977. 189/

(11) Provisions on notification concerning planned measures may be found in a number of studies by intergovernmental and international non-governmental organizations. 190/

(12) Provisions on prior notification of planned measures are contained, for example, in the revised draft convention on the industrial and agricultural use of international rivers and lakes adopted by the Inter-American Juridical Committee in 1965 191/ (especially arts. 8 and 9); the revised draft propositions submitted to the Asian-African Legal Consultative Committee in 1973 by its sub-committee on the law of international rivers 192/ (especially proposition IV, para. 2, and proposition X); the resolution on "Utilization of non-maritime international waters (except for navigation)" adopted by the Institute of

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in America. It may be noted that Bolivia and Chile recognized that the Declaration embodied obligations applicable to the Lauca River dispute between them. See OAS Council, documents OEA/SER.G/VI, C/INF-47 (15 and 20 April 1962) and OEA/SER.G/VI, C/INF-50 (19 April 1962).

188/ Recommendation C(74)224 adopted by the Council of OECD on 14 November 1974 (OECD, OECD and the Environment (Paris, 1986)).

189/ Report of the United Nations Water Conference, Mar del Plata, E.77.II.A.12, Part One, chap. I., pp. 51-52, especially Recommendation 86 (g).

190/ The relevant provisions are reproduced in extenso in the Special Rapporteur's third report, Yearbook ... 1987, vol. II (Part One), pp. 32 et seq., document A/CN.4/406 and Add.1 and 2, paras. 81-87.

191/ Report of the Inter-American Juridical Committee on the work accomplished during its 1965 meeting (OEA/Ser.I/VI.1, CIJ-83) (Washington (D.C.), 1966), pp. 7-10; text reproduced in part in Yearbook ... 1974, vol. II (Part Two), pp. 349-351, document A/CN.4/274, para. 379.

192/ Asian-African Legal Consultative Committee, Report of the Fourteenth Session held in New Delhi (10-18 January 1973) (New Delhi), pp. 99 et seq.; text reproduced in Yearbook ... 1974, vol. II (Part Two), pp. 339-340, document A/CN.4/274, para. 367.

International Law in 1961 193/ (arts. 4-9); the resolution on the use of international rivers adopted by the Inter-American Bar Association at its Tenth Conference, in 1957 194/ (para. I.3); the Helsinki Rules adopted by ILA in 1966 195/ (art. XXIX); the articles on "Regulation of the flow of water of international watercourses" adopted by ILA in 1980 196/ (arts. 7 and 8); the Rules on Water Pollution in an International Drainage Basin, adopted by ILA in 1982 197/ (arts. 5 and 6); 198/ and the "Draft principles of conduct in the field of the environment for the guidance of States in the conservation and harmonious utilization of natural resources shared by two or more States", adopted by the Intergovernmental Working Group of Experts on Natural Resources Shared by Two or

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193/ See Annuaire de L'Institute droit international, 1961, vol. 49-II, pp. 381-384.

194/ Inter-American Bar Association, Proceedings of the Tenth Conference, Buenos Aires, 1957 (Buenos Aires, 1958), pp. 82-83; reproduced in Yearbook ... 1974, vol. II (Part Two), p. 208, document A/5409, para. 1092.

195/ See Annuaire de L'Institute droit international, 1961, vol. 49-II, pp. 381-384.

196/ For the texts of the articles, with introduction and comments by the Rapporteur, E.J. Manner, see ILA, Report of the Fifty-ninth Conference, Belgrade, 1980 (London, 1982), pp. 362 et seq. The term "regulation" is defined in article 1 as:

> "continuing measures intended for controlling, moderating, increasing or otherwise modifying the flow of the waters in an international watercourse for any purpose; such measures may include storing, releasing and diverting of water by means such as dams, reservoirs, barrages and canals".

197/ ILA, Report of the Sixtieth Conference, Montreal, 1982 (London, 1983), pp. 535 et seq. The Association has prepared other studies that are of present relevance. See, for example, the Rules of International Law Applicable to Transfrontier Pollution, also adopted at the Montreal Conference in 1982 (ibid., pp. 1-3) (art. 3, para. 1).

198/ See also art. 3.

More States and approved by the Governing Council of UNEP in 1978 199/ (principles 6 and 7).

(13) The foregoing survey of authorities is illustrative only, but it reveals the importance that States and expert bodies attach to the principle of prior notification of planned measures. Procedures to be followed subsequent to a notification under article 12 are dealt with in articles 13 to 17.

Article 13

Period for reply to notification 200/

Unless otherwise agreed:

(a) a watercourse State providing a notification under article 12 shall allow the notified States a period of six months within which to study and evaluate the possible effects of the planned measures and to communicate the findings to it;

(b) this period shall, at the request of a notified State for which the evaluation of the planned measure poses special difficulty, be extended for a period not exceeding six months.

Commentary

(1) The provision of a notification under article 12 has two effects, which are dealt with in articles 13 and 14. The first effect, provided for in article 13, is that the period for reply to the notification begins to run. The second effect, dealt with in article 14, is that the obligations specified in that article arise for the notifying State.

(2) A full understanding of the effect of article 13 requires that brief reference be made to the provisions of several subsequent articles. Article 13 subparagraph (a) affords the notified State or States a period of six months for study and evaluation of the possible effects of the planned measures. Subparagraph (b) of Article 13 recognizes that in exceptional cases a notified State may need additional time to reply. A notified State seeking such an

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199/ See Environmental Law. Guidelines and Principles, No. 2, Shared Natural Resources (Nairobi 1978).

200/ Initially adopted in 1988.

extension must cite the "special difficulty" which requires the extension. During the period for reply to notification, article 14 requires that the notifying State, inter alia, not proceed with the implementation of its plans without the consent of the notified State. In any event, paragraph 1 of article 15 requires the notified State to reply as early as possible, out of good-faith consideration for the interest of the notifying State in proceeding with its plans. Of course, the notified State may reply after the period applicable has elapsed, but such a reply could not operate to prevent the notifying State from proceeding with the implementation of its plans, in view of the provisions of article 16. The latter article allows the notifying State to proceed to implementation if it receives no reply within the six-month period.

(3) The Commission considered the possibility of using a general standard for the determination of the period for reply, such as "a reasonable period of time", 201/ rather than a fixed period such as six months. 202/ It concluded, however, that a fixed period, while necessarily somewhat arbitrary, would ultimately be in the interests of both the notifying and the notified States. While a general standard would be more flexible and adaptable to different situations, its inherent uncertainty could at the same time lead to disputes between the States concerned. All these considerations demonstrate the need for watercourse States to agree upon a period of time that is appropriate to the case concerned, in the light of all relevant facts and circumstances. Indeed, the opening clause of article 13, "unless otherwise agreed", is intended to emphasize that, in each case, States are expected and encouraged to agree upon an appropriate period. The six-month period for reply as well as the six months extension of the period of reply provided for in article 13 are thus residual,

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201/ Instruments using this kind of standard include the 1961 resolution of the Institute of International Law on "Utilization of non-maritime international waters (except for navigation)" (see footnote 124 (b) above) (art. 6), and ILA's 1966 Helsinki Rules (see ILA, Report of the Fifty-second Conference, Helsinki 1966, pp. 484 et seq. (see footnote 124 (d) above) (art. XXIX, para. 3).

202/ An instrument stipulating a six-month period is the 1975 Statute of the Uruguay River Actos Internacionales, Uruguay-Argentina, 1930-1980 (1981) p. 593 (art. 8).

and applies only in the absence of agreement between the States concerned upon another period.

Article 14

Obligations of the notifying State during the period for reply 203/

During the period referred to in article 13, the notifying State shall cooperate with the notified States by providing them, on request, with any additional data and information that is available and necessary for an accurate evaluation, and shall not implement or permit the implementation of the planned measures without the consent of the notified States.

Commentary

(1) As its title indicates, article 14 deals with the obligations of the notifying State during the period specified in article 13 for reply to a notification made pursuant to article 12. There are two obligations. The first is an obligation of cooperation, which takes the specific form of a duty to provide the notified State or States, at their request, "with any additional data and information that is available and necessary for an accurate evaluation" of the possible effects of the planned measures. Such data and information would be "additional" to that which had already been provided under article 12. The meaning of the term "available" is discussed in paragraph (5) of the commentary to article 12.

(2) The second obligation of the notifying State under article 14 is not to "implement or permit the implementation of the planned measures without the consent of the notified States". The expression "implement or permit the implementation of" is discussed in paragraph (3) of the commentary to article 12, and bears the same meaning as in that article. It perhaps goes without saying that this second obligation is a necessary element of the procedures provided for in part III of the draft, since these procedures are designed to maintain a state of affairs characterized by the expression "equitable utilization" within the meaning of article 5. If the notifying State were to proceed with implementation before the notified State had had an opportunity to evaluate the possible effects of the planned measures and inform the notifying State of its findings, the

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203/ Initially adopted in 1988.

notifying State would not have at its disposal all the information it would need to be in a position to comply with articles 5 to 7. The duty not to proceed with implementation is thus intended to assist watercourse States in ensuring that any measures they plan will not be inconsistent with their obligations under articles 5 and 7.

Article 15

Reply to notification 204/

1. The notified States shall communicate their findings to the notifying State as early as possible.

2. If a notified State finds that implementation of the planned measures would be inconsistent with the provisions of articles 5 or 7, it shall communicate this finding to the notifying State within the period applicable pursuant to article 13, together with a documented explanation setting forth the reasons for the finding.

Commentary

(1) Article 15 deals with the obligations of the notified State or States with regard to their response to the notification provided under article 12. As with article 14, there are two obligations. The first, laid down in paragraph 1, is to communicate their findings concerning possible effects of the planned measures to the notifying State "as early as possible". As explained in paragraph (2) of the commentary to article 13, this communication must be made within the six-month period provided for in article 13, or in the case where a notified State has requested for an extension of time, due to special circumstances, within the period of such extension, i.e. six months in order for a notified State to have the right to request a further suspension of implementation under paragraph 3 of article 17. If a notified State completed its evaluation in less than six months, or in less than the additional six months where an extension was requested, however, paragraph 1 of article 15 would call for it to inform the notifying State immediately of its findings. A finding that the planned measures would be consistent with articles 5 and 7 would conclude the procedures under part III of the draft, and the notifying State could proceed without delay to

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204/ Initially adopted in 1988.

implement its plans. Even if a contrary finding were made, however, early communication of that finding to the notifying State would result in bringing to a speedier conclusion the applicable procedures under article 17.

(2) Paragraph 2 deals with the second obligation of the notified States. This obligation arises, however, only for a notified State which "finds that implementation of the planned measures would be inconsistent with the provisions of articles 5 or 7". In other words, the obligation is triggered by a finding that implementation of the plans would result in a breach of the obligations under article 5, or article 7. (As noted in paragraph (3) of the commentary to article 12, the term "implementation" applies to measures planned by private parties as well as to those planned by the State itself.) Paragraph 2 of article 15 requires a notified State which has made such a finding to provide the notifying State, within the six-month period specified in article 13, with an explanation of the finding. The explanation must be "documented" - i.e. must be supported by an indication of the factual or other bases for the finding - and must set forth the reasons for the notified State's conclusion that implementation of the planned measures would violate articles 5 or 7. 205/ The word "would" was used rather than a term such as "might" in order to indicate that the notified State must conclude that a violation of articles 5 or 7 is more than a mere possibility. The reason for the strictness of these requirements is that a communication of the kind described in paragraph 2 permits a notified State to request, pursuant to paragraph 3 of article 17, further suspension of the implementation of the planned measures in question. This effect of the communication justifies the requirement of paragraph 2 that the notified State demonstrate its good faith by showing that it has made a serious and considered assessment of the effects of the planned measures.

Article 16

205/ A similar requirement is contained in art. 11 of the 1975 Statute of the Uruguay River (see footnote 73 above), which provides that the communication of the notified party "shall state which aspects of the works or of the mode of operation may cause appreciable harm to ... the regime of the river or the quality of its waters, the technical grounds for that conclusion and suggested changes in the project or the mode of operation".

Absence of reply to notification 206/

1. If, within the period applicable pursuant to article 13, the notifying State receives no communication under paragraph 2 of article 15, it may, subject to its obligations under articles 5 and 7, proceed with the implementation of the planned measures, in accordance with the notification and any other data and information provided to the notified States.

2. Any claim to compensation by a notified State which has failed to reply may be offset by the costs incurred by the notifying State for action undertaken after the expiration of the time for a reply which would not have been undertaken if the notified State had objected within the period applicable pursuant to article 13.

Commentary

(1) Article 16 deals with cases in which the notifying State, during the required period applicable in article 13, receives no communication under paragraph 2 of article 15 - i.e. one which states that the planned measures would be inconsistent with the provisions of articles 5 or 7, and provides an explanation for such finding. In such a case, the notifying State may implement or permit the implementation of the planned measures, subject to two conditions. The first is that the plans be implemented "in accordance with the notification and any other data and information provided to the notified States" under articles 12 and 14. The reason for this condition is that the silence of a notified State with regard to the planned measures can be regarded as tacit consent only in relation to matters which were brought to its attention. The second condition is that implementation of the planned measures be consistent with the obligations of the notifying State under articles 5 and 7.

(2) The idea underlying article 16 is that, if a notified State does not provide a response under paragraph 2 of article 15 within the required period, it is inter alia precluded from claiming the benefits of the protective regime established in part III of the draft. The notifying State may then proceed with the implementation of its plans, subject to the conditions referred to in paragraph (1) of the present commentary. Permitting the notifying State to proceed in such cases is an important aspect of the balance which the present articles seek to strike between the interest of notifying and notified States.

206/ Initially adopted in 1988.

(3) The purpose of paragraph 2 is to avoid the consequences of a failure to reply on the part of a notified State from falling entirely on the notifying State. The effect of the paragraph is to establish that the costs incurred by the notifying State in proceeding with its plans in reliance on the absence of a reply from the notified State can be used as a set off against any claims by a notified State. It was decided that to authorize expressly counter claims by a notifying State (i.e. claims in excess of those put forward by the notified State) could prove excessively onerous in some cases. In the highly unlikely event there are several notified States who failed to reply but who assert injury, the set off shall be allocated among them pro rata on the basis on the ratio of their respective claims to each other.

Article 17

Consultations and negotiations concerning planned measures 207/

1. If a communication is made under paragraph 2 of article 15, the notifying State and the State making the communication shall enter into consultations and, if necessary, negotiations with a view to arriving at an equitable resolution of the situation.

2. The consultations and negotiations shall be conducted on the basis that each State must in good faith pay reasonable regard to the rights and legitimate interests of the other State.

3. During the course of the consultations and negotiations, the notifying State shall, if so requested by the notified State at the time it makes the communication, refrain from implementing or permitting the implementation of the planned measures for a period not exceeding six months.

Commentary

(1) Article 17 deals with cases in which there has been a communication under paragraph 2 of article 15, i.e. one containing a finding by the notified State that "implementation of the planned measures would be inconsistent with the provisions of articles 5 or 7".

(2) Paragraph 1 of article 17 calls for the notifying State to enter into consultations and, if necessary, negotiations with the State making a

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207/ Initially adopted in 1988.

communication under paragraph 2 of article 15 "with a view to arriving at an equitable resolution of the situation". Some members saw a distinction between consultations and negotiations. The term "if necessary" was therefore used to underscore the fact that consultations, if undertaken, could sometimes resolve the issues and therefore would not always have to be followed by negotiations. The "situation" referred to is that produced by the good-faith finding of the notified State that implementation of the planned measures would be inconsistent with the obligations of the notifying State under articles 5 and 7. The "equitable resolution" referred to in paragraph 1 could include, for example, modification of the plans so as to eliminate their potentially harmful aspects, adjustment of other uses being made by either of the States, or the provision by the notifying State of monetary or another form of compensation acceptable to the notified State. Consultations and negotiations have been required in similar circumstances in a number of international agreements 208/ and decisions of international courts and tribunals. 209/ The need for such consultations and negotiations has

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208/ See, for example, the 1954 Convention between Yugoslavia and Austria concerning water economy questions relating to the Drava (UNTS vol. 227, p. 111) (art. 4); the 1960 Convention on the protection of Lake Constance against pollution (UN Legislative Texts, p. 438, No. 127), (art. 1, para. 3); the 1964 Agreement between Poland and the USSR concerning the use of water resources in frontier waters (see footnote 130 above) (art. 6); the 1964 Agreement concerning the Niger River Commission and the navigation and transport on the River Niger (UNTS vol. 587, p. 19) (art. 12); and the 1981 Convention between Hungary and the USSR concerning water economy questions in frontier waters (referred to in Environmental Protection and Sustainable Development. Legal Principles and Recommendations (Dordrecht, Martinus Nijhoff, 1987), p. 106) (arts. 3-5).

209/ See especially the Lake Lanoux arbitral award. Of general relevance in this regard are several decisions of the ICJ in cases involving the law of the sea, such as the North Sea Continental Shelf cases (Federal Republic of Germany v. Denmark, and Federal Republic of Germany v. Netherlands), Judgment of 20 February 1969, I.C.J. Reports 1969, p. 3, especially pp. 46-48, paras. 85 and 87; and the Fisheries Jurisdiction (United Kingdom v. Iceland) case, Merits, Judgment of 25 July 1974, I.C.J. Reports 1974, p. 3, especially pp. 30-31, para. 71, and p. 33, para. 78.

also been recognized in a variety of resolutions and studies by intergovernmental 210/ and international non-governmental organizations. 211/

(3) Paragraph 2 concerns the manner in which the consultations and negotiations provided for in paragraph 1 are to be conducted. The language employed is inspired chiefly by the judgment of the ICJ in the Fisheries Jurisdiction (United Kingdom v. Iceland) case 212/ and by the award of the arbitral tribunal in the Lake Lanoux case. 213/ The manner in which consultations and negotiations are to be conducted was also addressed by the ICJ in the North Sea Continental Shelf cases. 214/ The expression "legitimate" interests is employed in article 3 of the Charter of Economic Rights and Duties of States 215/ and is used in the present paragraph 2 in order to provide some limitation of the scope of the term "interests".

210/ See, for example, the Charter of Economic Rights and Duties of States (General Assembly resolution 3281 (XXIX) of 12 December 1974) (art. 3); General Assembly resolution 3129 (XXVIII) of 13 December 1973 on cooperation in the field of the environment concerning natural resources shared by two or more States; the "Principle of information and consultation" annexed to the 1974 OECD "Principles concerning transfrontier pollution" (see footnote 187 above); and UNEP's 1978 "Draft principles of conduct" concerning shared natural resources (Environmental Law: Guidelines and Principles: No. 2, Shared Natural Resources (Nairobi) 1978 (principles 5, 6 and 7).

211/ See, for example, the above-mentioned resolutions adopted by the Institute of International Law in 1961 Annuaire de L'Institute de droit international 1961 vol. 49 - II pp. 381-384) (art. 6) and in 1979 (Annuaire de L'Institute de droit international 1979, vol. 58 II pp. 196 et seq (art. VII; and the articles adopted by ILA in 1980 (see ILA, Report of the Fifty-second Conference, Helsinki, 1966, pp. 484 et seq. (art. 8) and in the 1982 see ILA, Report of the Sixtieth Conference, Montreal 1982, pp. 535 et seq. (art. 6)

212/ See especially paragraph 78 of the judgment (see in fine). Report of the International Arbitral Awards vol. II, pp. 921 et seq. and in Yearbook ... 1974 vol. II, (Part Two) p. 197.

213/ See Reports of the International Arbitral Awards, Vol. XII, p. 281, and the passages from the award quoted in Ibid.

214/ See paragraphs 85 and 87 of the judgment.

215/ General Assembly resolution 3281 (XXIX) of 12 December 1974.

(4) Paragraph 3 requires the notifying State to suspend implementation of the planned measures for a further period of six months, but only if requested to do so by the notified State when the latter makes a communication under paragraph 2 of article 15. Implementation of the measures during a reasonable period of consultations and negotiations would not be consistent with the requirements of good faith laid down in paragraph 2 of article 17 and referred to in the Lake Lanoux arbitral award. 216/ By the same token, however, consultations and negotiations should not further suspend implementation for more than a reasonable period of time. This period should be the subject of agreement by the States concerned, who are in the best position to decide upon a length of time that is appropriate under the circumstances. In the event that they are not able to reach agreement, however, paragraph 3 sets a period of six months. After this period has expired, the notifying State may proceed with implementation of its plans, subject always to its obligations under articles 5 and 7.

Article 18

Procedures in the absence of notification 217/

1. If a watercourse State has serious reason to believe that another watercourse State is planning measures that may have a significant adverse effect upon it, the former State may request the latter to apply the provisions of article 12. The request shall be accompanied by a documented explanation setting forth its reasons.

2. In the event that the State planning the measures nevertheless finds that it is not under an obligation to provide a notification under article 12, it shall so inform the other State, providing a documented explanation setting forth the reasons for such finding. If this finding does not satisfy the other State, the two States shall, at the request of that other State, promptly enter into consultations and negotiations in the manner indicated in paragraphs 1 and 2 of article 17.

3. During the course of the consultations and negotiations, the State planning the measures shall, if so requested by the other State at the time it requests the initiation of consultations and negotiations, refrain from

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216/ See passages from the award quoted in Report of the International Arbitral Awards, vol. II, pp. 921 et seq. and in Yearbook .... Vol. II (Part Two) p. 197.

217/ Initially adopted in 1988.

implementing or permitting the implementation of those measures for a period not exceeding six months.

Commentary

(1) Article 18 addresses the situation in which a watercourse State is aware that measures are being planned by another State (or by private parties in that State) and believes that they may have a significant adverse effect upon it, but has received no notification thereof. In such a case, article 18 allows the first State to seek the benefits of the protective regime provided for under articles 12 et seq.

(2) Paragraph 1 allows "a watercourse State" in the position described above to request the State planning the measures in question "to apply the provisions of article 12". The expression "a watercourse State" is not intended to exclude the possibility that more than one State may believe measures are being planned by another State. The words "apply the provisions of article 12" should not be taken as suggesting that the State planning the measures has necessarily failed to comply with its obligations under article 12. In other words, that State may have made an assessment of the potential of the planned measures for causing significant adverse effects upon other watercourse States and concluded in good faith that no such effects would result therefrom. Paragraph 1 allows a watercourse State to request that the State planning measures take a "second look" at its assessment and conclusion, and does not prejudge the question whether the planning State initially complied with its obligations under article 12. In order for the first State to be entitled to make such a request, however, two conditions must be satisfied. The first is that the requesting State must have "serious reason to believe" that measures are being planned which may have a significant adverse effect upon it. The second is that the requesting State must provide a "documented explanation setting forth the reasons for such belief". These conditions are intended to require that the requesting State have more than a vague and unsubstantiated apprehension. A serious and substantiated belief is necessary, particularly in view of the possibility that the planning State may be required to suspend implementation of its plans under paragraph 3 of article 18.

(3) The first sentence of paragraph 2 deals with the case in which the planning State concludes, after taking a "second look" as described in paragraph (2) of

the present commentary, that it is not under an obligation to provide a notification under article 12. In such a situation, paragraph 2 seeks to maintain a fair balance between the interests of the States concerned by requiring the planning State to provide the same kind of justification for its finding as was required of the requesting State under paragraph 1. The second sentence of paragraph 2 deals with the case in which the finding of the planning State does not satisfy the requesting State. It requires that, in such a situation, the planning State promptly enter into consultations and negotiations with the other State (or States), at the request of the latter. The consultations and negotiations are to be conducted in the manner indicated in paragraphs 1 and 2 of article 17. In other words, their purpose is to achieve "an equitable resolution of the situation", and they are to be conducted "on the basis that each State must in good faith pay reasonable regard to the rights and legitimate interests of the other State". These phrases are discussed in the commentary to article 17.

(4) Paragraph 3 requires the planning State to refrain from implementing the planned measures for a period of six months, in order to allow consultations and negotiations to be held, if it is requested to do so by the other State at the time the latter requests consultations and negotiations under paragraph 2. This provision is similar to that contained in paragraph 3 of article 17, but in the case of article 18 the period starts to run from the time of the request for consultations under paragraph 2.

Article 19

Urgent implementation of planned measures 218/

1. In the event that the implementation of planned measures is of the utmost urgency in order to protect public health, public safety or other equally important interests, the State planning the measures may, subject to articles 5 and 7, immediately proceed to implementation, notwithstanding the provisions of article 14 and paragraph 3 of article 17.

2. In such cases, a formal declaration of the urgency of the measures shall be communicated to the other watercourse States referred to in article 12 together with the relevant data and information.

218/ Initially adopted in 1988.

3. The State planning the measures shall, at the request of any of the States referred to in paragraph 2, promptly enter into consultations and negotiations with it in the manner indicated in paragraphs 1 and 2 of article 17.

Commentary

(1) Article 19 deals with planned measures whose implementation is of the utmost urgency "in order to protect public health, public safety or other equally important interests". It does not deal with emergency situations, which will be addressed in a subsequent article. Article 19 concerns highly exceptional cases in which interests of overriding importance require that planned measures be implemented immediately, without awaiting the expiry of the periods allowed for reply to notification and for consultations and negotiations. Provisions of this kind have been included in a number of international agreements. 219/ In formulating the article, the Commission has endeavoured to guard against possibilities of abuse of the exception it establishes.

(2) Paragraph 1 refers to the kinds of interests that must be involved in order for a State to be entitled to proceed to implementation under article 19. The interests in question are those of the highest order of importance, such as protecting the population from the danger of flooding or issues of vital national security. Paragraph 1 also contains a waiver of the waiting periods provided for under article 14 and paragraph 3 of article 17. The right of the State to proceed to implementation is, however, subject to its obligations under paragraphs 2 and 3 of article 19.

(3) Paragraph 2 requires a State proceeding to immediate implementation under article 19 to provide the "other watercourse States referred to in article 12" with a formal declaration of the urgency of the measures, together with the

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219/ See, for example, the Agreement of 10 April 1922 between Denmark and Germany for the settlement of questions relating to watercourses and dikes on the German-Danish frontier (League of Nations, Treaty Series, vol. X, p. 201) (art. 29 in fine); and the 1960 Convention on the protection of Lake Constance against pollution (see Recueil officiel des lois et des ordonnances 1961, vol. 2, p. 923, No. 43, UN Leg. Texts, p. 438 No. 127) (art. 1, para. 3).

relevant data and information. These requirements are intended to provide for a demonstration of the good faith of the State proceeding to implementation, and to ensure that the other States are informed as fully as possible of the possible effects of the measures. The "other watercourse States" are those upon which the measures "may have a significant adverse effect" (art. 12).

(4) Paragraph 3 requires that the State proceeding to immediate implementation enter promptly into consultations and negotiations with the other States, if and when requested to do so by those States. The requirement that the consultations and negotiations be conducted in the manner indicated in paragraphs 1 and 2 of article 17 is the same as that contained in paragraph 2 of article 18, and is discussed in the commentary to that paragraph.

PART IV

PROTECTION, PRESERVATION AND MANAGEMENT

Article 20

Protection and preservation of ecosystems 220/

Watercourse States shall, individually or jointly, protect and preserve the ecosystems of international watercourses.

Commentary

(1) Article 20 introduces Part IV of the draft articles by laying down a general obligation to protect and preserve the ecosystems of international watercourses. In view of the general nature of the obligation contained in this article, the Commission was of the view that it should precede the other more specific articles in Part IV.

(2) Like article 192 of the 1982 United Nations Convention on the Law of the Sea, 221/ article 20 contains obligations of both protection and preservation. These obligations relate to the "ecosystems of international watercourses", an expression utilized by the Commission because it is more precise than the concept of the "environment" of a watercourse. The latter term could be interpreted quite broadly, to apply to areas "surrounding" the watercourses that have minimal bearing on the protection and preservation of the watercourse itself. Furthermore, the term "environment" of a watercourse might be construed to refer only to areas outside the watercourse, which is of course not the intention of the Commission. For these reasons, the Commission preferred to utilize the term "ecosystem" which is believed to have a more precise scientific and legal meaning. 222/ Generally, that term refers to an ecological unit consisting of

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220/ Initially adopted as article 22 in 1990.

221/ Article 192, entitled "General obligation", provides: "States have the obligation to protect and preserve the marine environment."

222/ Reference may be made generally in this connection to the ongoing work of the Economic Commission for Europe in this field. See "Ecosystems approach to water management" (ENVWA/WP.3/R.7/Rev.1), and the case studies on the Oulujoki River (Finland), Lake Mjosa (Norway), the Lower Rhine River (Netherlands), and

living and non-living components that are interdependent and function as a community. 223/ "In ecosystems, everything depends on everything else and nothing is really wasted." 224/ Thus, "[a]n external impact affecting one component of an ecosystem causes reactions among other components and may disturb the equilibrium of the entire ecosystem". 225/ Since "[e]cosystems support life on earth", 226/ such an "external impact", or interference, may impair or destroy the ability of an ecosystem to function as a life-support system. It goes without saying that serious interferences can be, and often are, brought about by human conduct. Human interferences may irreversibly disturb the equilibrium of freshwater ecosystems, in particular, rendering them incapable of supporting human and other forms of life. As observed in the Proposed Medium-Term Plan of the United Nations for the period 1992-1997:

> "Interactions between freshwater ecosystems on the one hand and human activities on the other are becoming more complex and incompatible as socio-economic development proceeds. Water basin development activities can have negative impacts too, leading to unsustainable development, particularly where these water resources are shared by two or more States." 227/

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the Ivankovskoye Reservoir (Soviet Union) (ENVWA/WP.3/R.11/Add.1 and 2).

223/ "An ecosystem is commonly defined as a spatial unit of Nature in which living organisms and the non-living environment interact adaptively." (ENVWA/WP.3/R.7/Rev.1), p. 3, para. 9. The Expert Group on Environmental Law of the World Commission on Environment and Development, in the comment to Article 3 of its Legal principles and recommendations, defines "ecosystems" as "systems of plants, animals and micro-organisms together with the non-living components of their environment". Environmental Protection and Sustainable Development, Legal Principles and Recommendations (1987), p. 45.

224/ "Ecosystems approach to water management" (ENVWA/WP.3/R.7/Rev.1), p. 3, para. 9.

225/ Ibid., para. 11.

226/ Ibid., para. 9.

227/ Proposed Medium-Term Plan for the period 1992-1997, Major programme IV, International economic cooperation for development, Programme 16, Environment (A/45/6), p. 9, para. 16.24.

The obligation to protect and preserve the ecosystems of international watercourses addresses this problem, which is already acute in some parts of the world and which will become so in others as increasing human populations place ever greater demands on finite water resources. 228/

(3) The obligation to "protect" the ecosystems of international watercourses is a specific application of the requirement contained in article 5 that watercourse States are to use and develop an international watercourse in a manner that is consistent with adequate protection thereof. In essence, it requires that watercourse States shield the ecosystems of international watercourses from harm or damage. It thus includes the duty to protect those ecosystems from a significant threat of harm. 229/ The obligation to "preserve" the ecosystems of international watercourses, while similar to that of protection, applies in particular to freshwater ecosystems that are in a pristine or unspoiled condition. It requires that these ecosystems be protected in such a way as to maintain them as much as possible in their natural state. Together, protection and preservation of aquatic ecosystems help to ensure their continued viability as life support systems, thus providing an essential basis for sustainable development. 230/

(4) In requiring that watercourse States act "individually or jointly", article 20 recognizes that in some cases it will be necessary and appropriate that watercourse States cooperate, on an equitable basis, to protect and preserve the

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228/ See, e.g. "Water: the finite resource", IUCN Bulletin, volume 21, number 1, March 1990, p. 14.

229/ The obligation to protect the ecosystems of international watercourses is thus a general application of the principle of precautionary action, discussed in International Legal Materials vol. XXVI (1987) p. 1516.

230/ The following observation contained in the Proposed Medium-Term Plan is relevant in this connection: "The maintenance of biological diversity, which encompasses all species of plants, animals and micro-organisms and the ecosystems of which they are part, is a major element in achieving sustainable development." Doc. A/45/6, para. 16.7.

ecosystems of international watercourses. The requirement of article 20 that watercourse States act "individually or jointly" is therefore to be understood as meaning that joint, cooperative action is to be taken where appropriate, and that such action is to be taken on an equitable basis. For example, joint action would usually be appropriate in the case of contiguous watercourses or those being managed and developed as a unit. What constitutes action on an equitable basis will, of course, vary with the circumstances. 231/ Among the factors to be taken into account in this connection are the extent to which the watercourse States concerned have contributed to the problem and the extent to which they will benefit from its solution. Of course, the duty to participate equitably in the protection and preservation of the ecosystems of an international watercourse is not to be regarded as implying an obligation to repair or tolerate harm that has resulted from another watercourse State's breach of its obligations under the draft articles. 232/ But the general obligation of equitable participation demands that the contributions of watercourse States to joint protection and preservation efforts be at least proportional to the measure in which they have contributed to the threat or harm to the ecosystems in question. Finally, it will be recalled that article 194 of the 1982 United Nations Convention on the Law of the Sea also requires that measures be taken "individually or jointly", in that case with regard to pollution of the marine environment. 233/

231/ See generally the commentaries to articles 5 and 6 above. For example, paragraph (1) of the commentary to article 6, referring to the obligation of equitable and reasonable utilization laid down in article 5, states as follows:

> "The latter rule is necessarily general and flexible, and requires for its proper application that States take into account concrete factors pertaining to the international watercourse in question, as well as to the needs and uses of the watercourse States concerned. What is equitable and reasonable utilization in a specific case will therefore depend on a weighing of all relevant factors and circumstances."

232/ Thus, for example, State A would be under no obligation to repair appreciable harm it had suffered solely as a result of the conduct of State B.

233/ United Nations Convention on the Law of the Sea, article 194, para. 1.

(5) There is ample precedent for the obligation contained in article 20 in the practice of States and the work of international organizations. Illustrations of these authorities are provided in the following paragraphs. 234/

(6) Provisions concerning the protection of the ecosystems of international watercourses may be found in a number of agreements. For example, in the 1975 Statute of the Uruguay River, Argentina and Uruguay agree to coordinate, through a commission established under the agreement, "appropriate measures to prevent the alteration of the ecological balance, and to control impurities and other harmful elements in the river and its catchment area". 235/ The parties further undertake to "agree on measures to regulate fishing activities in the river with a view to the conservation and preservation of living resources", 236/ and "to protect and preserve the aquatic environment...". 237/ Similarly, reference can be made to the 1978 Convention relating to the status of the River Gambia; 238/ to the 1963 Act regarding navigation and economic cooperation between the

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234/ For more extensive surveys of relevant authorities, see the Fourth report of the Special Rapporteur (A/CN.4/412), paras. 28-86; and the Third report of the second Special Rapporteur, Yearbook ... 1982, vol. II (Part One), document A/CN.4/348, paras. 243-336.

235/ Statute of the Uruguay River, art. 36, Uruguay, Ministerio de Relaciones Exteriores, Actos Internacionales Uruguay-Argentina, 1830-1980 (Montevideo, 1981), p. 593.

236/ Ibid., art. 37.

237/ Ibid., art. 41.

238/ Convention relating to the status of the River Gambia, 30 June 1978 (Gambia, Guinea, Senegal), reproduced in Treaties concerning the Utilization of International Watercourses for Other Purposes than Navigation, Africa, Natural Resources/Water Series No. 13, (ST/ESA/141) (1984), Treaty No. 10, p. 39, art. 4, p. 40 (Hereinafter referred to as "Natural Resources/Water Series No. 13").

States of the Niger Basin; 239/ and to the 1978 Agreement between Canada and the United States on Great Lakes Water Quality. 240/

(7) A number of early agreements had as their object the protection of fish and fisheries. 241/ An example includes the 1904 Convention between France and Switzerland for the regulation of fishing in their frontier waters. 242/ Other agreements in effect protect the ecosystems of international watercourses by protecting the waters thereof against pollution. These include the 1958 Treaty between the Soviet Union and Afghanistan concerning the regime of the Soviet-Afghan State frontier; 243/ and the 1956 Convention concerning the canalization of the Moselle between the Federal Republic of Germany, France and Luxembourg. 244/

(8) The need to protect and preserve the ecosystems of international watercourses is also recognized in the work of international organizations,

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239/ Act regarding navigation and economic cooperation between the States of the Niger Basin (Cameroon, Chad, Dahomey, Guinea, Ivory Coast (Côte d'Ivoire), Mali, Niger, Nigeria, Upper Volta (Burkina Faso)), 26 October 1963, art. 4, United Nations Treaty Series, vol. 587, No. 8506, p. 9. Also reproduced in Natural Resources/Water Series No. 13, p. 6, at p. 7.

240/ Article II. United States Government Printing Office, Treaties and Other International Acts Series, No. 9257.

241/ 1868 Final Act of the delimitation of the international frontier of the Pyrenees between France and Spain, sect. I, clause 6, United Nations, Legislative Texts, Treaty No. 186, pp. 674 and 676, summarized in Yearbook...1974, vol. II (Part Two), p. 182, document A/5409, paras. 979 and 980 (c). See also e.g. the 1887 Convention between Switzerland and the Grand Duchy of Baden and Alsace-Lorraine, Legislative Texts, Treaty No. 113, p. 397, art. 10; the 1906 Agreement between Switzerland and Italy establishing provisions in respect of fishing in frontier waters, Legislative Texts, Treaty No. 230, p. 839, art. 12, para. 5, summarized in Yearbook ... 1974, vol. II (Part Two), document A/CN.4/274, para. 633; and the 1904 Convention between France and Switzerland for the regulation of fishing in their frontier waters, Legislative Texts, Treaty No. 196, p. 701, arts. 6, 11 and 17.

242/ Legislative Texts, Treaty No. 196, p. 701, art. 17 at p. 706.

243/ Ibid., Treaty No. 86, p. 276, art. 13.

244/ Ibid., Treaty No. 123, p. 424, art. 55.

conferences and meetings. The Act of Asunción, adopted by the Fourth Meeting of Foreign Ministers of the Plata River Basin States in 1971, 245/ refers to the "grave health problems arising from ecological relationships in the geographic area of the River Plate Basin, which have an unfavourable impact on the social and economic development of the region", and notes that "this health syndrome is related to the quality and quantity of the water resources". 246/ The Act also mentions "The need to control water pollution and preserve as far as possible the natural qualities of the water as an integral part of a policy in the conservation and utilization of the water resources of the Basin ...". 247/ Among the decisions adopted by the United Nations Water Conference, held at Mar del Plata in 1977, is a recommendation entitled "Environment and health", which provides that "It is necessary to evaluate the consequences which the various uses of water have on the environment, to support the measures aimed at controlling water-related diseases, and to protect ecosystems." 248/

(9) In addition to the instruments concerning the protection and preservation of the ecosystems of international watercourses, a number of agreements, resolutions, declarations and other instruments recognize the importance of protecting and preserving the environment in general, or ecosystems other than those of watercourses, in particular. Agreements concerning the environment in general include the 1968 African Convention on the Conservation of Nature and Natural Resources 249/ and the 1985 ASEAN Agreement on the Conservation of

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245/ Reproduced in Yearbook ... 1974, vol. II (Part Two), document A/CN.4/274, para. 326.

246/ Ibid., Resolution No. 15.

247/ Ibid., p. 323.

248/ Report of the United Nations Water Conference, Mar del Plata, 14-25 March 1977 (E/CONF.70/29) (United Nations publication-Sales No.: E.77.II.A.12), p. 25.

249/ Natural Resources/Water Series No. 13, supra, note 237, p. 2. See especially article II, "Fundamental principle", in which the parties "undertake to adopt the measures necessary to ensure conservation, sustainable utilization and development of soil, water, air, floral and faunal resources" taking into account the necessity of maintaining essential ecological processes ...", and

Nature and Natural Resources. 250/ Reference has already been made to the analogous obligation "to protect and preserve the marine environment" contained in article 192 of the 1982 United Nations Convention of the Law of the Sea, 251/ which is complemented by a number of more specific agreements concerning the protection of the marine environment. 252/ In addition, the principle of precautionary action reflected in article 20 has found expression in a number of

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article V, "Water and air", in which the parties agree to "establish and implement policies designed to maintain air- and water-based essential ecological processes...".

250/ Adopted on 7 September 1985 by Brunei, Indonesia, Malaysia, the Philippines, Singapore and Thailand. See especially article 1, "Fundamental principle", in which the parties undertake to adopt "the measures necessary to maintain essential ecological processes and life-support systems ...", and article 8, "Water", in which the parties recognize "the role of water in the functioning of natural ecosystems..." and agree to endeavour to assure sufficient water supply "for, inter alia, the maintenance of natural life supporting systems and aquatic fauna and flora ...".

See also, e.g. the 1940 Washington Convention on Nature Protection and Wild Life Preservation in the Western Hemisphere, United Nations, Treaty Series, vol. 161, p. 193; the 1972 Paris Convention concerning the Protection of World Cultural and Natural Heritage, International Legal Materials, vol. XI (1972), p. 1358; the 1979 Berne Convention on the Conservation of European Wildlife and Natural Habitats, European Treaty Series, No. 104 and the 1986 Convention for the Protection and Development of the Natural Resources and Environment of the South Pacific Region, International Legal Materials, vol. XXVI (1987), p. 41.

251/ See UN Doc. Sales No. E.83.V.5.

252/ See, e.g.: the 1981 Convention for cooperation in the protection and development of the marine and coastal environment of the West and Central African Region, Natural Resources/Water Series No. 13, p. 2; the 1974 Convention on the prevention of pollution from land-based sources, International Legal Materials, vol. XIII (1974), p. 352; the 1974 Convention on the protection of the marine environment of the Baltic Sea area, ibid., p. 546; the 1976 Convention on the protection of the Mediterranean Sea against pollution, ibid., vol. XV (1976) p. 290, and its 1980 Protocol, ibid., vol. XX (1980), p. 873; and the 1978 Kuwait Regional Convention for cooperation in the protection of the marine environment from pollution, ibid., vol. XVII (1978), p. 511.

international agreements and other instruments. 253/ Also of general relevance, as evidence of a recognition by States of the necessity of protecting essential ecological processes, are the numerous declarations and resolutions concerning the preservation of the environment. These include the 1972 Stockholm Declaration of the United Nations Conference on the Human Environment, 254/ the General Assembly 1982 resolution on the World Charter for Nature, 255/ the 1989 Amazon Declaration, 256/ the 1989 Draft American Declaration on the Environment, 257/ the 1988 ECE Declaration on Conservation of Flora, Fauna and their Habitats, 258/ the 1990 Bergen Ministerial Declaration on Sustainable

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253/ The principle of precautionary action has been applied especially in instruments concerning the ozone layer and land-based marine pollution. With regard to the ozone layer, see the 1985 Vienna Convention for the Protection of the Ozone Layer, International Legal Materials, vol. XXVI (1987), p. 1516, and its 1987 Montreal Protocol on Substances that Deplete the Ozone Layer, ibid., p. 1541. Concerning land-based and other forms of marine pollution, see, e.g. Decision 15/27 adopted by the Governing Council of the United Nations Environment Programme at its fifteenth session on 25 May 1989 under the title "Precautionary approach to marine pollution, including waste-dumping at sea"; and the Ministerial Declarations of the Second and Third International Conferences on the Protection of the North Sea (London, 24-25 November 1987 and The Hague, 8 March 1990, respectively). The Ministerial Declarations specify that the precautionary principle entails the taking of action to avoid potentially damaging impacts of dangerous substances (i.e., those that are persistent, toxic of bioaccumulative) "even before a causal link [between emissions and effects] has been established by absolutely clear scientific evidence ...".

254/ Adopted on 16 June 1972 (A/CONF.48/14, pp. 2 et seq.). See especially Principles 2 to 5 and 12.

255/ Resolution 37/7 of 28 October 1982.

256/ A/44/275, E/1989/79, Annex.

257/ Organization of American States, document CJI/RES.II-10/89.

258/ Adopted by the Economic Commission for Europe at its forty-third session in 1988, decision E (43) (E/ECE/1172 and ECE/ENVWA/6). In the Declaration, the ECE Governments agree, inter alia, to pursue the aim of "conserv[ing] living natural resources in the interests of present and future generations by maintaining essential ecological processes and life-support systems, preserving genetic diversity and ensuring sustainable utilization of species and ecosystems ..." (Ibid.), operative para. 1.

Development in the ECE Region 259/ and the Hague Declaration on the Environment of 11 March 1989. 260/ The importance of maintaining "the ecological balance" 261/ in utilizing natural resources, and of following "the ecosystems approach" 262/ to the protection of water quality, have also been recognized in instruments adopted within the framework of the Conference on Security and Co-operation in Europe (CSCE). Finally the work of the World Commission on Environment and Development 263/ and its Experts Group on Environmental Law 264/ also emphasize that maintaining ecosystems and related ecological processes is essential to the achievement of sustainable development. 265/

259/ The Declaration recognizes, inter alia, in its paragraph 6, that "The challenge of sustainable development of humanity depends on providing sustainability of the biosphere and its ecosystems ...".

260/ International Legal Materials, vol. XXVIII (1989), p. 1308.

261/ Helsinki Final Act (CSCE/CC/64), p. 54.

262/ Report on Conclusions and Recommendations of the 1989 Meeting on the Protection of the Environment of the Conference on Security and Co-operation in Europe, held in Sofia (CSCE/SEM.36/Rev.1), p. 12.

263/ Our Common Future (1987).

264/ Environmental Protection and Sustainable Development, Legal Principles and Recommendations, (1987), p. 45 especially article 3, "Ecosystems, related ecological processes, biological diversity, and sustainability", at p. 45.

265/ See, to the same effect, the Environmental Perspective to the Year 2000 and Beyond, e.g. paras. 2 and 3(d), adopted by the Governing Council of the United Nations Environment Programme (Official Records of the General Assembly, Forty-second Session, Supplement No. 25, document A/42/25, annex II) and subsequently adopted by the General Assembly in resolution 42/186 of 11 December 1987 "as a broad framework to guide national action and international co-operation on policies and programmes aimed at achieving environmentally sound development".

Also to the same effect are certain provisions of the Constitution of the Republic of Namibia, which entered into force on 21 March 1990, including art. 91 (concerning functions of the Ombudsman), para. (c), and art. 95 (concerning "Promotion of the Welfare of the People"), para. (1). According to the latter, for example, "The State shall actively promote and maintain the welfare of the people by adopting, inter alia, policies aimed at the following: ... (1)

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maintenance of ecosystems, essential ecological processes and biological diversity of Namibia and the utilization of living natural resources on a sustainable basis for the benefit of all Namibians, both present and future ...".